

Salpingitis Isthmica Nodosa: A Case Report

PARASAPPA JOTEPPA YARANAL¹, VIJAYAKUMAR HEGDE²

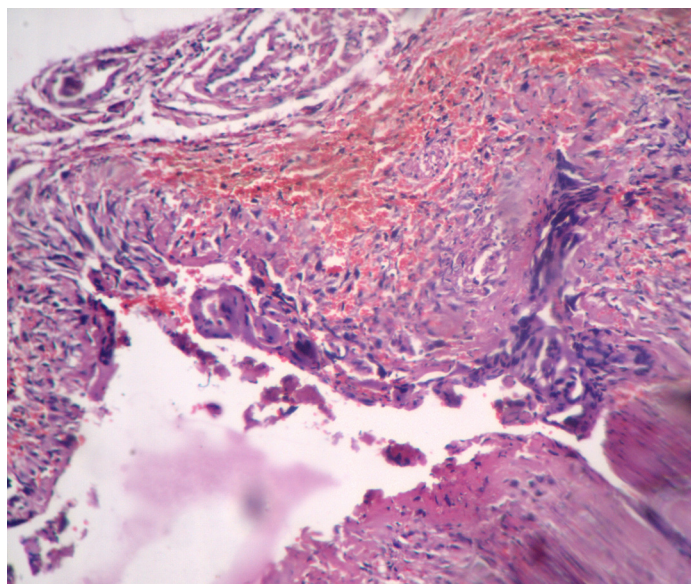
ABSTRACT

Salpingitis isthmica nodosa places the patient at risk for recurrent ectopic pregnancy or infertility. Hence, we report a case of salpingitis isthmica nodosa which was salpingectomized for pain abdomen in a 46-year old woman.

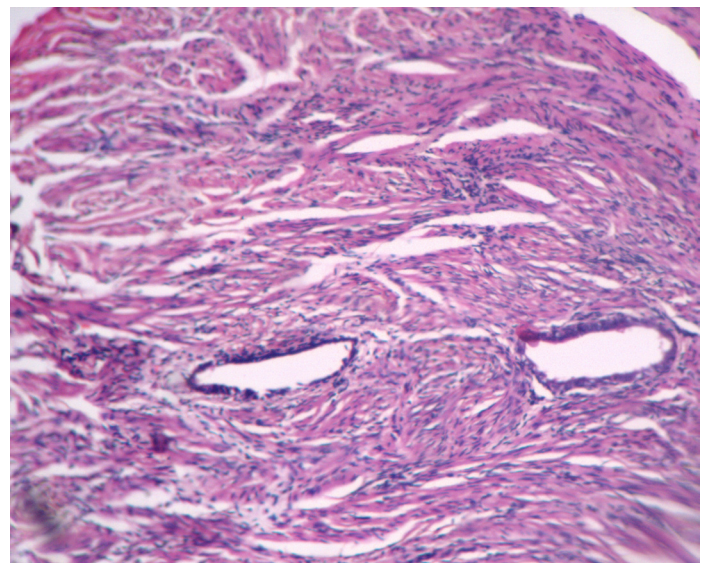
CASE REPORT

Clinical findings: A 42-year female presented to the gynaecology department with history of G₃P₂L₂ and abdominal pain. She had history of 2-months amenorrhea and urine sample was positive for pregnancy test. On examination tenderness in the right iliac fossa and abdominal ultrasonography showed right fallopian tube mass, suggestive of ectopic pregnancy. Clinically diagnosed as ruptured tubal pregnancy, this patient underwent emergency laprotomy and bilateral salpingectomy. No history of previous surgery or tubectomy.

Histopathological findings: Left fallopian tube was 5cms in length and was within normal limits. Right fallopian tube was 7.5cms in length and dilated at distal end with a defect measuring 1x1 cms covered by grey-white exudate. Cut surface showed blood clot with grey brown material in the lumen and wall thickened. The bits were given from the ruptured area and proximal part of the tube. Microscopically distal segment of right fallopian tube showed decidua bits mainly composed of cytotrophoblastic and syncytiotrophoblastic cells with no chorionic villi [Table/Fig-1]. Proximal (isthmus) portion of tube revealed cystically dilated glands entrapped in hypertrophic muscular layer and the glands were lined by ciliated columnar epithelium [Table/Fig-2]. With these histopathological features, the final diagnosis of isthmic ectopic pregnancy and salpingitis isthmica nodosa was made.



[Table/Fig-1]: Fallopian tube showing decidua tissue bits with trophoblastic cells. (H & E, x 40)



[Table/Fig-2]: Cystically dilated glands trapped in the muscular layer (H & E, x 40)

Keywords: Salpingectomy, Ectopic pregnancy, Fallopian tube

DISCUSSION

Salpingitis Isthmica Nodosa (SIN) is a condition of nodular thickening of the proximal fallopian tube enclosing cystically dilated glands trapped in muscular layer [1,2]. It commonly occurs in the age group of 25-60 years women with average age at diagnosis being 30 years [1,3]. It is usually bilateral and the patients presents with recurrent ectopic pregnancies and primary infertility [3]. Hysterosalpingography is diagnostic for SIN, shows 2-mm accumulations of contrast medium observed within the diverticula with associated irregularities in the tubal lumen [1,3,4].

Incidence of SIN in healthy, fertile women ranges from 0.6% to 11%, but it is significantly more common in the setting of ectopic pregnancy and infertility [1].

The aetiology of this condition is unknown. SIN was pathologically first described by Chiari [4] and attributed to be an inflammatory aetiology or adenomyosis-like process [5]. Others proposed congenital Wolffian or mesonephric rests [6], neoplasia [7] or a late result of chronic tubal spasm similar to colonic diverticulosis [8].

The incidence of SIN in the normal population is reported as between 0.6% and 11% [8,9], with the higher incidence in a Jamaican population. It has been associated with ectopic tubal pregnancies with a wide range of incidence (2.8%–57%) [2,8] and in 46% if the isthmic site-specific ectopic pregnancy is considered separately [10]. The association of salpingitis isthmica nodosa

(SIN) and isthmic ectopic pregnancy was determined by review of resected tubal segments. SIN was noted in 17 of 37 cases (45.9%) of isthmic ectopic pregnancy. SIN places the patient at risk for recurrent ectopic pregnancy or infertility [11].

Microscopic examination of the tube shows dispersed glands of tubal epithelium surrounded by bands of muscle fibres [10]. On hysterosalpingography, diagnosis of SIN may be confused with tubal endometriosis. However, presence of tubal epithelium lining glands on histopathological examination rules out endometriosis [12].

CONCLUSION

SIN is significantly associated with the recurrent ectopic pregnancies and infertility; hence, it is important to rule out SIN in such cases.

REFERENCES

- [1] Jenkins CS, Williams SR, Schmidt GE. Salpingitis isthmica nodosa: A review of literature, discussion of clinical significance and consideration of patient management. *Fertil Steril*. 1993;60:599-607.
- [2] Majumdar B, Henderson PH, Semple E. Salpingitis isthmica nodosa: A high risk for tubal pregnancy. *Obstet Gynecol Surv*. 1983;62:73-78.
- [3] Chawla N, Kudesia S, Azad S, Singhal M. Salpingitis isthmica nodosa. *Ind J Pathol Microbiol*. 2009; 52: 434- 35.
- [4] Chiari H. Zur Pathologischen anatomie des Eileit. *Z Heilkd* 1887; 8:457-64.
- [5] Green LK, Kott ML. Histopathologic findings in ectopic tubal pregnancy. *Int J Gynecol Pathol*. 1989;8: 255-62.
- [6] Creasy JL, Clark RL, Cuttino JT, Groff TR. Salpingitis isthmica nodosa: Radiologic and clinical correlates. *Radiology*. 1985; 154:597-600.
- [7] Bunday JG, Williams JD. Salpingitis isthmica nodosa with tumor formation resembling torsion of an ovarian cyst. *J Obstet Gynaecol Br Commonw*. 1963; 70:519-22.
- [8] Honore LH. Salpingitis isthmica nodosa in female infertility and ectopic tubal pregnancy. *Fertil Steril*. 1978; 29:164-68.
- [9] Persaud Y. Etiology of tubal ectopic pregnancy. *Obstet Gynecol*. 1970; 36:257-63.
- [10] Wheeler JE. Pathology of the fallopian tube. In: *Pathology of the Female Genital Tract*. Springer, Berlin Heidelberg New York. 1982 pp 403-04.
- [11] Homm RJ, Holtz G, Garvin AJ. Isthmic ectopic pregnancy and salpingitis isthmica nodosa. *Fertile Steril*. 1987; 48: 756- 60.
- [12] Karasick S, Karasick D, Schilling J. Salpingitis isthmicanodosa in female infertility. *J Can Assoc Radiol*. 1985; 36:118-21.

PARTICULARS OF CONTRIBUTORS:

1. Professor, Department of Pathology, Kannur Medical College, Kannur, Kerala, India.
2. Assistant Professor, Department of Pathology, Kannur Medical College, Kannur, Kerala, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Parasappa Joteppa Yaranal,
Professor, Department of Pathology, Kannur Medical College, Kannur, Kerala-670612, India.
Phone: 094488-24484, 08891988809, E-mail: pjyaranal@yahoo.co.in

Date of Submission: **Jun 05, 2013**
Date of Peer Review: **Aug 18, 2013**
Date of Acceptance: **Sep 29, 2013**
Date of Publishing: **Nov 10, 2013**

FINANCIAL OR OTHER COMPETING INTERESTS: None.